Remarks:

This amendment is submitted in an earnest effort to advance this case to issue without delay.

Claim 1 has been replaced with a new independent claim 20 that more clearly defines the instant invention. The examiner's attention is particularly directed at the step of "controlling" now in claim 1.

The claims stand rejected principally on two references, namely US 6,107,116 of Kariya and 6,537,428 of Xiong in view of "Impedance Controll.." of Kon. None of these references describes an etching process. Neither do they discuss the relationship between the operating point and the subsequent etching relationship of the layers.

In fact the closest prior art is the NPL document "State-of-the-art mid-frequency sputtered ZnO films..." by Mueller. This reference shows a substrate temperature of up to 200 °C with a dosing of 4.8 at-% and a dynamic deposition rate of 60 nm*m*min. The partial oxygen pressure is taken into account in the manufacture of ZnO layers as seen in FIG. 2 in section 2.1, para. 2 and section 3.1, para. 2. Mueller does not show a dosing limit of less than 2.3 at-% nor does Mueller show the stabilized operating point for controlling the etching behavior.

The dosing level of less than 2.3 at-% has the advantage that transmission is improved and the charge-carrier movability is increased as described on page 6, line 8 of the translation serving as Specification.

Selecting the stabilized operating point in an unstable process region for controlling the etching behavior of the ZnO layers has the advantage that the surface roughness of the ZnO layer after etching is determined after etching by the selection of the stabilized operating point in the unstable process region as an inherent property of the layer.

Mueller doe not suggest either optimizing with regard to the dosing level nor the selection of the operating point for controlling the etching process. Instead this reference clearly teaches something else: "For the following studies, the films showing the lowest resistivities out of each parameter set were chosen" (section 2.1, para. 2 and section 3.1, para. 2).

Thus the instant invention as defined in new main claim 20 defines over Mueller.

In Kariya, Xiong, and Kon there is no etching. Kon optimizes by using the optical and electrical properties (FIGS. 2-4), Xiong optimizes the deposition rate (able 2,col. 8, abstract).

The layers according to the state of the art are always optimized with regard to this optical ane electrical properties or the fast deposition rate, namely for the subsequent etching they

are selected (Mueller, section 3.1, para. 2 "were chosen," Kon FIG. 2-3; Xiong col. 8, table).

This selection sorts out the best ZnO layers and then etches them.

According to claim 1 the layers are not selected based on their best optical or electrical properties, but all the layers produced by the method are etched. The desired optical and electrical properties are inherently produced in the layers without producing rejects. Checking the optical and/or electrical properties of the Zno layer as in the prior art is not done according to this invention.

This represents a significant simplification and speeding-up of the process and reduces waste relative to the prior-art method.

Since the above-discussed references teach an altogether different process using different criteria, namely using the optical and electrical properties or the deposition rate rather than optimizing the operating point, they do not anticipate the instant invention as defined in new claim 20.

Allowance of all claims is therefore in order.

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